

FIG. 1 Current - volt characteristics of weaklink JJ device

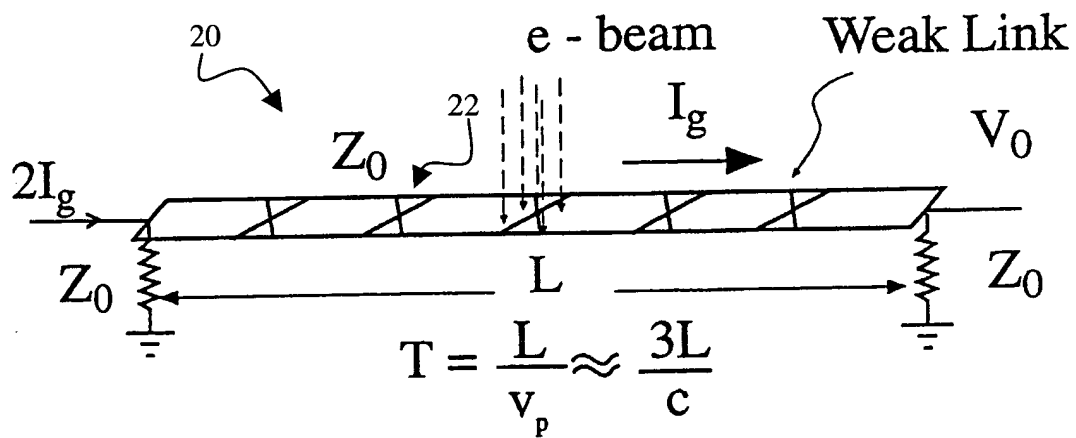


FIG. 2 *e-beam excited dispersionless HTC superconducting line matched at both ends and contains weak links in series*

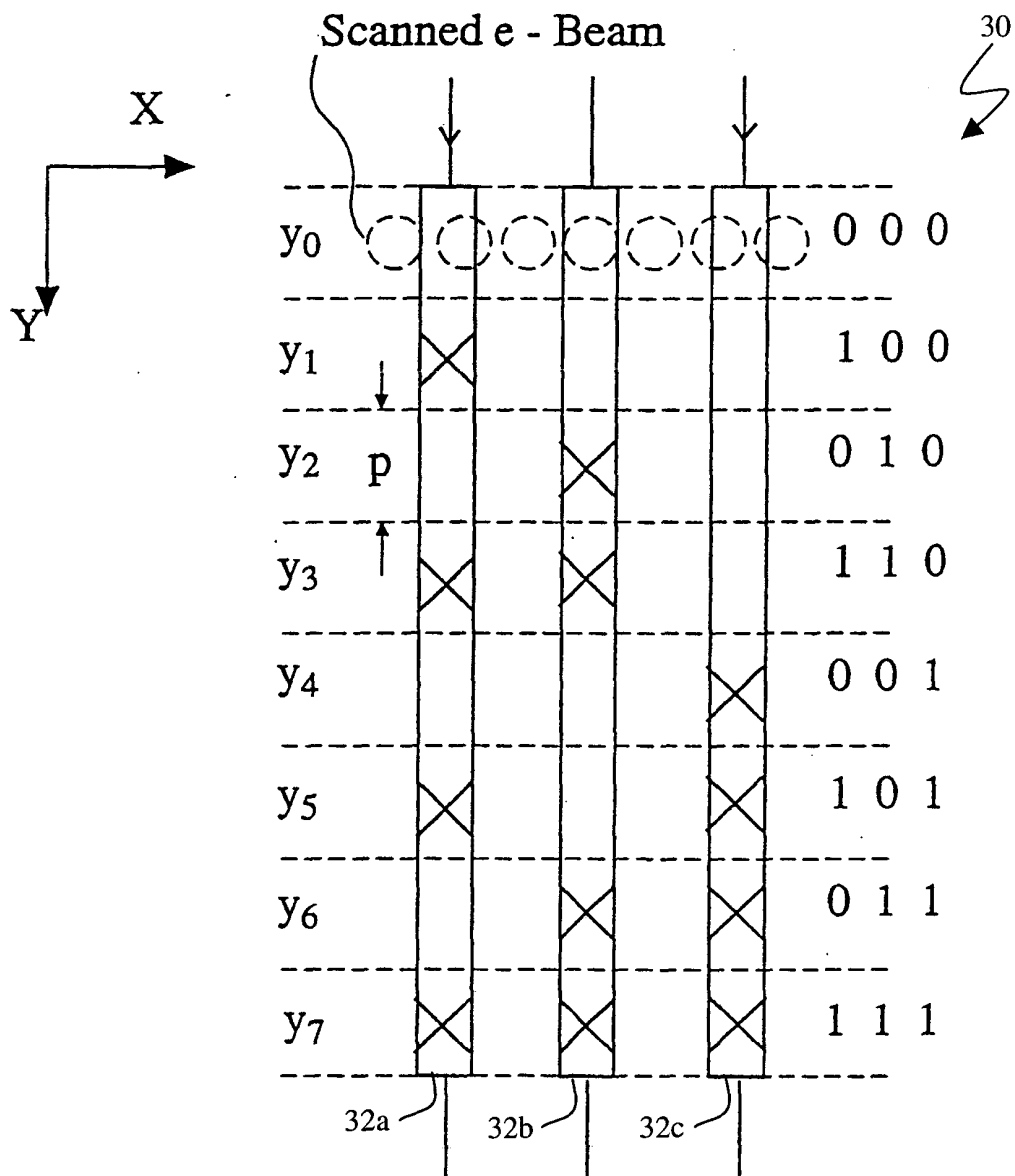


FIG. 3 **3-bit e-beam excited superconducting ADC**

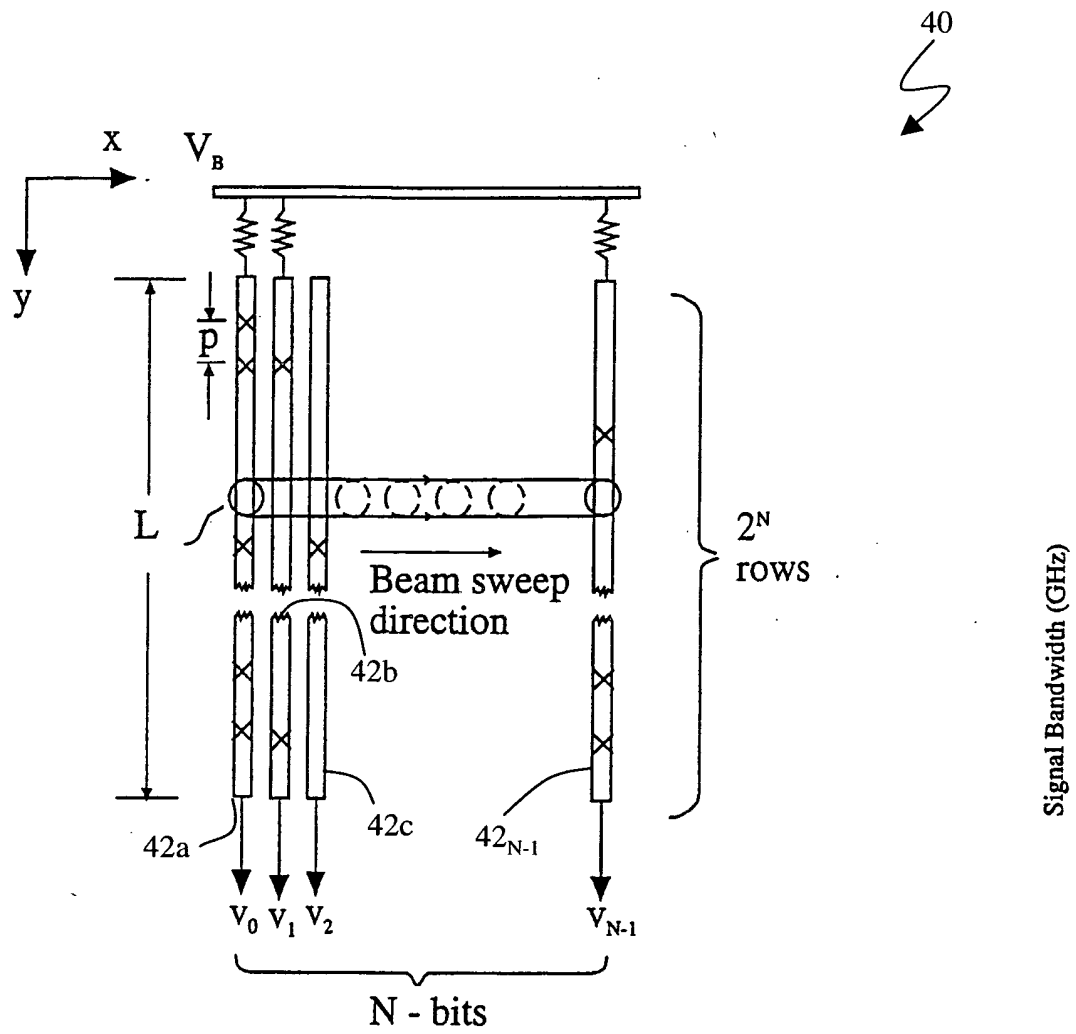
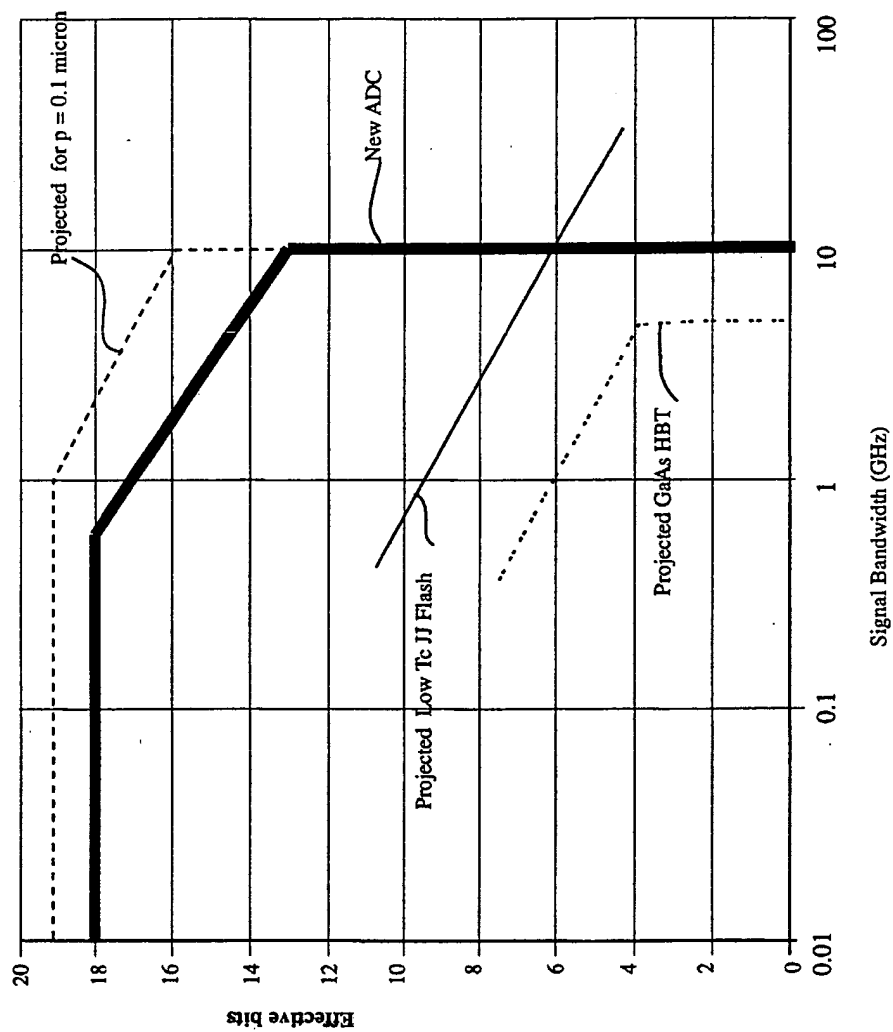


FIG. 4 *N -bit e -beam excited superconducting ADC*

Fig. 5 Performance of proposed e-beam ADC compared with other technologies



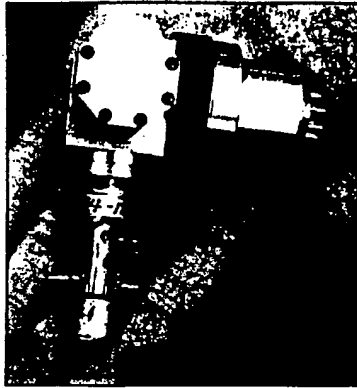


FIG. 6 - Miniature Stirling closed-cycle refrigerator built by Inframetrics Inc., N. Billerica, MA

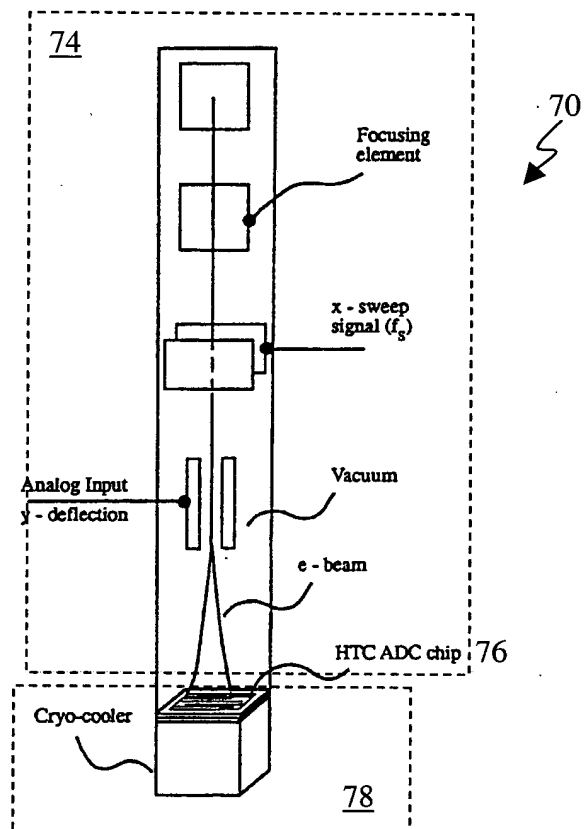


FIG. 7 Schematic diagram of ultra-high performance ADC system